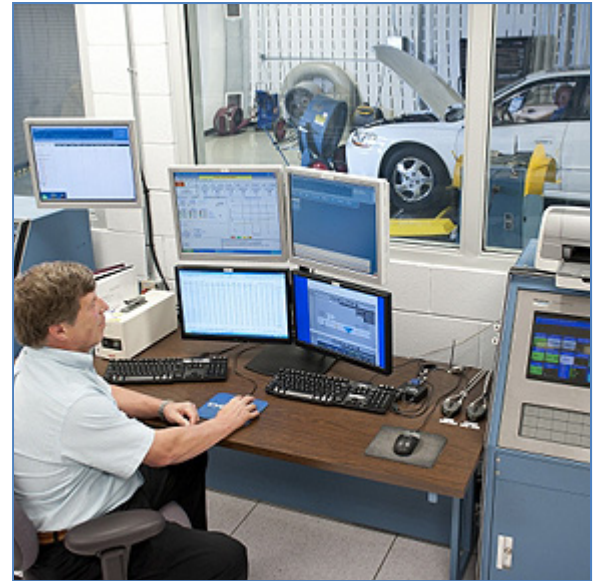


Delphi Customer Technology Center Michigan Vehicle Emissions Testing Laboratory

The Vehicle Emissions Testing Laboratory at the Delphi Customer Technology Center Michigan (CTCM) offers vehicle manufacturers and automotive component suppliers state-of-the-art test chambers for engine and exhaust aftertreatment development and regulatory compliance support. Real-time modal and/or tailpipe emissions data can be collected for:

- U. S. Environmental Protection Agency (EPA)
- California Air Resources Board (CARB)
- European regulatory schedules (ECE)
- Extra Urban Driving Cycle (EUDC)
- Asian regulatory schedules
- Custom-tailored testing and development

The CTCM Vehicle Emissions Testing Laboratory offers customers validation resources that have been enhanced over years of collaboration with major vehicle manufacturers around the world. Delphi's testing is conducted by a highly trained and experienced staff that understands the challenges facing manufacturers today. Delphi ensures complete confidentiality for testing. Laboratory services are conducted to meet individual customer schedules and at a competitive cost. Professional, experienced account management provides customers with single-point contact to streamline test coordination.



Typical set-up for Vehicle Emissions Testing Laboratory at Delphi Customer Technology Center Michigan.

Delphi's Vehicle Emissions Laboratory at the CTCM is conveniently located to support manufacturers in North America. It can support manufacturers in other regions through a network of regionally located technology centers. The Laboratory supports customers who do not have in-house testing capabilities or require "overflow" testing services.

► Capabilities

Delphi's Vehicle Emissions Testing Laboratory at the CTCM is a non-environmental ambient test facility with extensive experience in both bag and modal testing. It offers the following:

- 48-inch dynamometer measures typical driving cycles:
 - EPA regulatory schedules, including: US06, EPA 75, HWFET
 - CARB schedules, including: LEV1 and LEV2 (Low Emissions Vehicle), ULEV1 and ULEV2 (Ultra Low Emission Vehicle), SULEV (Super Ultra Low Emissions Vehicle), and TLEV (Transitional Low Emission Vehicle)
 - Various European regulatory schedules, including ECE and ECE+EUDC
 - Various Asian regulatory schedules, including: 10-15 mode and 11 mode
 - Hybrid vehicle and component support services

- 3-bench modal system:
 - Various exhaust gas emissions measurements, including post-engine and post-catalyst
 - Fuel economy compliance measurement (U.S.)
- Canister loading capability:
 - Purge, stabilize and load canisters to breakthrough or working capacity
 - Condition canisters

► The Delphi Advantage

The Delphi Customer Technology Center Michigan supports hundreds of customers worldwide in the design, development, testing and validation of their products. It is certified to the ISO/TS 16949 Standard for Supplier Quality Management Systems. It is part of Delphi's network of state-of-the-art technical centers around the world.

Delphi is a leading global supplier of a broad range of technologies with manufacturing facilities located in more than 30 countries. Our products are engineered to meet the rigorous standards of the automotive industry, but Delphi technologies are also used in many other industries. We leverage our rich heritage and extensive technical knowledge to offer customers an array of innovative, cost competitive solutions.

► Contact Information

David Quinn
Manager, Powertrain Test Labs
Delphi Powertrain Systems
Customer Technology Center Michigan
3000 University Drive
Auburn Hills, Michigan 48326
U.S.A.
Telephone: (248) 732-1888
E-mail: david.quinn@delphi.com



An engineer makes adjustments on a Tailpipe Emissions Bench in the Vehicle Emissions Testing Laboratory at the Delphi Customer Technology Center Michigan.